

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces and supersedes all prior versions, and listings, of claims in the application.

Listing of the Claims:

1. (Currently Amended) A yarn image creation method for creating a color image of yarn having translucent fluff, comprising the steps of:

storing, on a computer-readable medium, color input images A, C of the yarn captured optically at least twice using different background images (G1, G2);

solving X and D in the system of equations

$$A=G1+(X-G1)D$$

$$C=G2+(X-G2)D$$

wherein X is a color image of the yarn itself and D is a yarn opacity image;

changing the value of D to 0 for pixels in which the value of D is not greater than a first predetermined value, and to 1 for pixels in which the value of D is not smaller than a second predetermined value, the yarn opacity image D being 1 in pixels where the yarn is totally opaque, and being 0 in pixels where the yarn is totally transparent; and

storing the obtained color image X of the yarn itself and the yarn opacity image D as a yarn color image (X,D) on a computer-readable medium.

2. (Previously Presented) The yarn image creation method of claim 1, wherein for capturing the color input image of the yarn, the yarn is set in a color scanner provided with a

cover, the color input image A of the yarn is captured with the cover open, and the color input image C of the yarn is captured with the cover closed.

3. (Previously Presented) The yarn image creation method of claim 2, wherein the yarn is set in said color scanner in such a way that the yarn is not compressed by the cover.

4. (Previously Presented) The yarn image creation method of claim 1, wherein the obtained yarn color image (X,D) is used for creating a simulated image of a textile product using the yarn.

5. (Previously Presented) A yarn image creation device for creating a color image of yarn having translucent fluff, comprising:

capturing means for optically capturing at least twice color input images A, C of the yarn using different background images (G1, G2);

storage means for storing the captured color input images;

means for solving X and D in the system of equations

$$A=G1+(X-G1)D$$

$$C=G2+(X-G2)D$$

wherein X is a color image of the yarn itself and D is a yarn opacity image;

means for changing the value of D to 0 for pixels in which the value of D is not greater than a first predetermined value, and to 1 for pixels in which the value of D is not smaller than a second predetermined value, the yarn opacity image D being 1 in pixels where the yarn is totally opaque, and being 0 in pixels where the yarn is totally transparent; and

storing means for storing the obtained color image X of the yarn itself and the yarn opacity image D as a yarn color image (X,D).

6. (Previously Presented) The yarn image creation device of claim 5, wherein said capturing means is a color scanner provided with a cover, the yarn is set in the color scanner, the color input image A of the yarn is captured with the cover open, and the color input image C of the yarn is captured with the cover closed.

7. (Previously Presented) The yarn image creation device of claim 5, further comprising means for using the obtained yarn color image (X,D) to create a simulated image of a textile product using the yarn.

8. (Currently Amended) A yarn image creation program stored on a computer readable medium for creating a color image of yarn having translucent fluff, comprising:
a computer [[an]] instruction for storing color input images A, C of the yarn captured optically at least twice using different background images (G1, G2);

a computer [[an]] instruction for solving X and D in the system of equations

$$A=G1+(X-G1)D$$

$$C=G2+(X-G2)D$$

wherein X is a color image of the yarn itself and D is a yarn opacity image;

a computer [[an]] instruction for changing the value of D to 0 for pixels in which the value of D is not greater than a first predetermined value, and to 1 for pixels in which the value

of D is not smaller a second predetermined value, the yarn opacity image D being 1 in pixels where the yarn is totally opaque, and being 0 in pixels where the yarn is totally transparent; and
a computer [[an]] instruction for storing the obtained color image X of the yarn itself and the yarn opacity image D as a yarn color image (X,D).

9. (Previously Presented) The yarn image creation program of claim 8, further comprising an instruction for using the obtained yarn color image (X,D) to create a simulated image of a textile product using the yarn.